

ABSTRACT OF THE DISCLOSURE

A method of etching a silicon layer to avoid non-uniformity. First, a patterned silicon layer is provided. Next, an etching buffer layer is conformally formed on the 5 surface and the top layer of the patterned silicon layer. Finally, the etching buffer layer and the patterned silicon layer are etched until the thickness of the patterned silicon layer is reduced. The conformal oxide layer provides etching resistance as an etching buffer layer, such 10 that the etching rate is uniform on the whole subject matter, thereby, reducing the thickness of the patterned silicon layer uniformly after etching.